OPERATIONAL RULES
SOURCE AND PUMPS/CONTROLS

Maintenance - Individual

Source

Location of source

Wells constructed according to 327 IAC 8-3.4-1

Pumping tests shall be conducted at least one time per year. Pumping test shall be used to determine specific capacity or efficiency of the well.

Static Water Levels should be monitored during season when drought conditions are occurring.

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Pumping Water Levels should be monitored at least two times a year and one of those times during the peak season.

Well logs shall be kept on hand for each well or if well logs not available at the time at the time of this rule. When pump tests are done the determination of the depth of the well shall be determined at that time.

Wells shall be cleaned if specific capacity test determines that the well is running at 50% capacity or if the drawdown is within three feet of screen.

Cleaning Reports shall be kept on hand for the life of the well.

Surface

Intake structures shall provide for

Velocity of flow .25 to.50 fps through the inlet structure so that frazil ice will be held to a minimum.

Withdrawal of water from the depth of the best water quality

Inspection manholes every 1,000 feet for pipe large enough to permit visual inspection

Adequate protection against rupture by dragging anchors, ice and other activity

Location referenced by permanent monuments.

Diversion devices capable of keeping large quantities of fish or debris from entering an intake structure where shore wells are not provided.

As built drawing

Impoundments and reservoirs shall be inspected and maintained to assure that

Water quality is protected by controlling runoff into the reservoir

Dikes are structurally sound and protected against wave action and erosion

Point of influent flow is separated from the point of withdrawal

Separate pipes are provided for influent to and effluent from the reservoir.

Spillways

Service Outlets

Raw water lines

Raw water lines to be identified from other types of water transmission line

Wellhead/Source Protection

Approved wellhead program for community systems.

The following items shall be taken into consideration to protect water supplies from the entrance of contamination:

Sources of contamination include but are not limited to privies; septic tanks; cesspools; sewers (storm, sanitary, combined and sewer service connections); subsurface seepage-disposal lines; pits or ponds receiving fluids such as surface waters, oils, and grease; and flood waters.

Structures to be protected include but are not limited to: wells; clear water reservoirs such as pressure equalizing reservoirs, collecting reservoirs, finished water clear wells; suction lines; gravity filters; iron removal, chlorine reaction and wet salt storage basins.

Security of Source

What should be on website?

Emergency Response

Plan that would incorporate contacting IDEM, and consumers

Backup electric power in case of electrically outages

Plan to provide potable water to consumers

Official custodians of a public water supply shall protect the water supply from contamination when any part of the system is out of service for repair, construction, alteration or replacement.

Any part of a public water system which has direct contact with finished water and has been out of service for repair, alteration or replacement shall be disinfected in accordance of AWWA Standards C651. Equipment which does not come in contact with finished water such as raw surface water pumps, raw surface water transmission lines, chemical mixing tanks and clarifiers need only be flushed before being returned to service. Filters shall be disinfected. Wells, water storage tanks and water mains shall be disinfected in accordance with AWWA Standards A100, D105 and C601.

Emergency Operation

A boil order shall be issued when bacteriological analyses show persistent low level contamination or gross contamination. The boil order shall remain in effect until requirements of 327IAC are met.

Issuance of a boil order does not relieve the water supply from making public notification in accordance with 327 IAC

Owners and operators of public water supplies shall immediately notify the Agency at the appropriate Regional Office when there is knowledge or suspicion that a water supply has become contaminated. On weekends, holidays and after office hours, the Agency may be reached through the Agency Emergency Response.

Pumps/Control Valves

Lubrication

Water lubricated pumps are required, except where oil lubricated pumps are necessary to provide positive lubrication at deep pump settings. The oil for pump lubrication shall be a food grade mineral oil.

All prelubricating lines shall be equipped with metering controls to monitor and limit the volume of prelubrication water

Lubrication should followed manufacturer's recommendation unless more lubrication is needed.

- High Service Pumps
  - Testing should incorporate the following to ensure maximum operating efficiency and minimum maintenance expenditures:
    - Priming
    - Packing and seals
    - Bearings
    - Vibration
    - Alignment
    - Sensor and controls
    - Pressure gauges
- Booster Pumps
  - Automatic control equipment shall be installed to prevent the pump from causing a vacuum and/or lowering water pressure in any part of the distribution system to less than 20 psi as measured at ground surface.
  - Pressure for portions of a distribution system served by a booster pump station shall be provided during periods when the booster station is not in operation.
  - All booster-pumping stations shall contain a totalizer meter.

Show the location, type and capacity of each pump.

Pump Setting show pump setting in the well.

Pumps shutoff

- Valves
  - Pumps shall be adequately valved to permit satisfactory operation, maintenance and repair if the equipment. If foot valves are necessary, they shall have a net valve area of at least 21/2 times the area of the suction pipe and they shall be screened. Each pump shall have a positive-acting check valve on the discharge side between the pump and the shut-off valve.
- Pressure side
  - Each pump shall have standard pressure gauge on its discharge line, a compound gauge on its suction line, recording gauges in the larger stations, have a means for measuring discharge.